CASINO GAMING IN HAMPTON ROADS

POTENTIAL REVENUES, ECONOMIC IMPACTS & SOCIAL IMPACTS

Prepared by Staff of the Hampton Roads Transportation Planning Organization and the Hampton Roads Planning District Commission

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INTRODUCTION

During the 2013 General Assembly session, the Senate Committee on General Laws and Technology voted to refer Senate Bill 714 (The Toll Mitigation Act) and Senate Bill 1369 (Virginia Riverboat Gaming Commission) to the Hampton Roads Transportation Planning Organization (HRTPO) to gather and analyze information regarding the four policy concerns listed below:

1. The potential overall economic impact of the development of a resort hotel/casino in the Hampton Roads Transportation District;

2. The potential revenue to the region and state that could be used for toll mitigation and other transportation projects;

3. The potential societal impact on the residents of the Hampton Roads region; and

4. The potential impact on state and local law enforcement in the Hampton Roads region.

Staff conducted an extensive literature review to gain an understanding of the potential impacts of casino gaming and the potential for revenue generation. Below is a summary of findings.

- Gaming has a long and established tradition in both Virginia and the Nation, with a strong majority (85%) of adults who approve of casino gaming.
- The median estimate for gross gaming receipts resulting from casino gaming in Hampton Roads is $375 million, which is consistent with estimates from casino development companies, where estimates range from $357 to $550 million.
- The level of taxation has a significant impact on the potential tax revenue generated by casino gaming. While tax rates vary from 7.75% to 55%, the national average tax rate is approximately 30%. Based on a 30% tax rate, gross gaming receipts of $375 million in Hampton Roads would yield an annual tax revenue of $113 million.
- The full level of revenue and taxation is likely to occur 18 months to 3 years after the casino is built, when the casino market matures.
- In spite of the fact that casino gaming has been the subject of numerous in-depth studies, there is little consensus with respect to the social and economic impacts of gaming.
- Economic modeling suggests that the economic impact of a regional casino with 2,000 employees would result in an increase in gross regional product of between $77.9 and $107.1 million and increase regional employment between 1,950 and 2,470.
- There are a host of studies identifying social costs associated with casino gaming, including impacts on crime, bankruptcy, mental illness, suicide, business costs, social service costs, regulatory costs, family costs, social connections, and political impacts. While it is not possible to quantify many of these social costs, one widely-cited resource estimated the crime related social cost to be approximately $110 per adult for the jurisdiction where the casino is located.

This paper will seek to examine the potential tax revenues that might be generated from casino gaming in Hampton Roads, and address the potential economic impact and social costs. This paper does not include an analysis of the economic impact of the construction of a casino. The potential impact of state and local law enforcement is addressed as part of the social costs of casino gambling.

HISTORICAL PERSPECTIVE

"Gambling is inevitable. No matter what is said or done by advocates or opponents in all its various forms, it is an activity that is practiced, or tacitly endorsed, by a substantial majority of Americans."[1] Gambling has strong historical roots in the U.S., and even in Virginia. The Virginia Company of London which financed the Jamestown colony was permitted by the crown to hold lotteries to help fund the operation of the colony. Lotteries began to be banned in the U.S. in 1833, and by the end of the 1840s, most states had banned lotteries because of moral objections and several lottery scandals. In 1910 the only legal betting in the country was in the three states that allowed horse racing.[2]

Anti-gambling sentiments began to change during the great depression, as several states allowed bingo as a way for churches and other charitable organizations to raise money. Horse racing began to expand; 21 additional states legalized pari-mutuel betting at horse racing tracks in the 1930s. Nevada ushered in a new era in 1931 by legalizing most forms of gambling, and the state hoped to benefit from the tourism boom expected in the wake of the Hoover Dam completion. As several states began to operate lotteries in the 1970s as an alternative to raising taxes, New Jersey became the second state to legalize gambling in 1978, though it was restricted to Atlantic City. 1979 saw the first casino on an Indian Reservation. Riverboat gambling appeared in several states in the 1990s, and eventually land-based casinos were allowed by numerous states.[2]

In the year of his death, 1826, Thomas Jefferson obtained permission from the Virginia legislature to hold a private lottery to alleviate his crushing debts. Like many other states, Virginia held a lottery to fund the establishment of its first university, William and Mary; additionally, George Washington was an advocate for also using lotteries to fund particular public works projects. Gambling was outlawed in Virginia in 1849.[2]

Virginia approved the return of a government run lottery in 1987, and sales began the next year. In the first years of the lottery, the funds were used for capital expenditures, and then to support the state general fund. In 2000, it was decided that all lottery revenues should be used for education purposes by local public school divisions. Pari-mutuel betting was allowed in Virginia in 1996 which allowed the opening of Colonial Downs Racetrack in New Kent County in 1997.[2]

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[1] Commission on the Review of the National Policy Toward Gambling, 1976

[2] Information for this section came from the National Gambling Impact Study Commission and the report, Gambling in California by Roger Dunstan

Gambling remains a complex issue with varied and divided opinions across the multitude of gambling options[3]. While public perceptions ebb and flow, the most recent survey information suggests that a strong majority (85%) think that casino gaming is acceptable for themselves or others.[4]

REVENUE POTENTIAL

This section describes the assumptions and methodology used to calculate the direct potential revenues that might result from casino gaming in Hampton Roads.

Assumptions in Analysis:

Several assumptions need to be made to allow for the calculation of potential revenues:

- The farther individuals have to travel, the less likely they are to go to a casino. In particular, it is travel time (rather than distance) which is important to gamers.
- Thus, the location of the casino (or casinos) will impact the number of people who gamble and from which communities they draw.
- The attractiveness, size and amenities—the weight/gravity of the gambling industry in an area— will affect gambling behavior and the propensity for those who live further away to travel to the casino.
- This analysis assumes a full development of a gaming facility, rather than the development of a restricted or partial gaming development.

Propensity to Gamble:

An important part of measuring the potential revenue of a casino results from the propensity of adults to gamble at that casino. The literature on gambling, both pro and con, agrees that the presence of a casino in a geographic area will increase the propensity of that population to gamble. Furthermore, that this propensity to visit casinos will decline with distance required to travel to the casino, or more accurately, according to the travel time to get to the casino.

After an extensive literature review, the New Hampshire Center for Public Policy Studies determined that it was most appropriate to divide the surrounding area into 3 zones based on travel time. Residents of Zone 1, with travel times between 0 and 30 minutes, had a likelihood of 48% to gamble. Zone 2, with a travel time between 30 and 60 minutes, had a propensity of 30%. A 20% propensity was assigned for households living in Zone 3, with travel times between 60 and 90 minutes.

When other casino or gaming opportunities are present, this analysis may require the use of an advanced gravity model, however, at present the closest casinos are in Delaware (3 hours away), Atlantic City (5 hours away), North Carolina (6 hours away), and past Washington D.C.. The development of another casino within the vicinity, therefore, could significantly alter the results of this analysis.

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[3] Giacopassi, David, Mark Nichols, and B. Grant Stitt 1999
[4] State of the States 2013: The AGA Survey of Casino Entertainment

The most recent analysis available on the characteristics of Virginia Gamblers comes from the Harrah's 2003 Casino profile of the U.S. Casino Gambler. Approximately 11.6% Virginians of legal age participated in Casino gambling, with an average of 2.7 trips to a casino per year. According to the Harrah's analysis, the top two destinations for Hampton Roads residents were Atlantic City (which accounted for 26% of casino trips) and Las Vegas (which accounted for 22% of casino trips). In the event that a casino was built and operated in Hampton Roads, a large number of those trips would likely be redirected to the local casino. Additionally, the Harrah's analysis reaffirms that the propensity to gamble increases with proximity to a casino, and the vast majority of the increased gambling occurs locally.

Estimated Number of Gamers:

Using the propensity to gamble based on travel time in the previous section; an estimate of the total number of gamers can be determined. Using a drive time analysis for a selection of sites in the region, the estimated number of gamers for a Hampton Roads casino industry varies between 468,166 and 609,817. It is important to note that a change in the propensity to gamble estimates shifts this number significantly. If the propensity to gamble in zone 1 proved to be 40%, this would decrease the estimated number of casino gamblers to between 425,037 and 557,750.

Two types of gamers are particularly important for the final analysis; first, the gamers who previously left the region to gamble, and whose money now remains in the local economy, and second, gamers who now enter the region because of gambling, adding new money into the economy.

The Harrah's survey indicated that 11.6% of the population participated in Casino gaming in 2002, and there has been no research to suggest that number has changed significantly. After applying that percentage to the adult population within the 90 minute drive time of sample casino sites, it indicates that at least 140,578 gamers who had left the Hampton Roads area to gamble elsewhere would gamble in the region after a local casino was built.[5]

Estimating new tourists who would come to the region because of Casino gambling is more difficult. Using the same study by Harrah's, 9.3% of the population of North Carolina went to casinos in 2002, with 22% of those going to Atlantic City. That would suggest a potential of approximately 50,000 gamers in North Carolina that go to Atlantic City who might choose to travel to a Hampton Roads casino instead.[6] There are also additional Virginia gamers from outside the immediate region that would be drawn into a regional casino. Finally, a regional casino might prove a sufficient amenity to encourage new tourists to come to the region and enjoy the casino as well as the current historical and recreational amenities that abound in the Hampton Roads. It is reasonable to assume that Hampton Roads would realize approximately 50,000 gamers from outside this region.

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[5] The adult population for this analysis is persons 20 years and older for the 5 sites, which varies between 1,317,259 and 2,176,796 within a 90 minute drive time. The Mobile/Pensacola region retains 92% (Harrah's 2003) of the population which gambles, so this estimate reflects the low estimate for the adult populations who currently gambles outside the region who would now gamble in Hampton Roads.

[6] 24,557 from the Greensboro—Winston-Salem—High Point, NC CSA (1,200,229*9.3%*22%) and 26,155 from the Raleigh-Durham-Cary, NC CSA (1,278,340*9.3%*22%)

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Proximity of Existing Casino Gaming Establishments
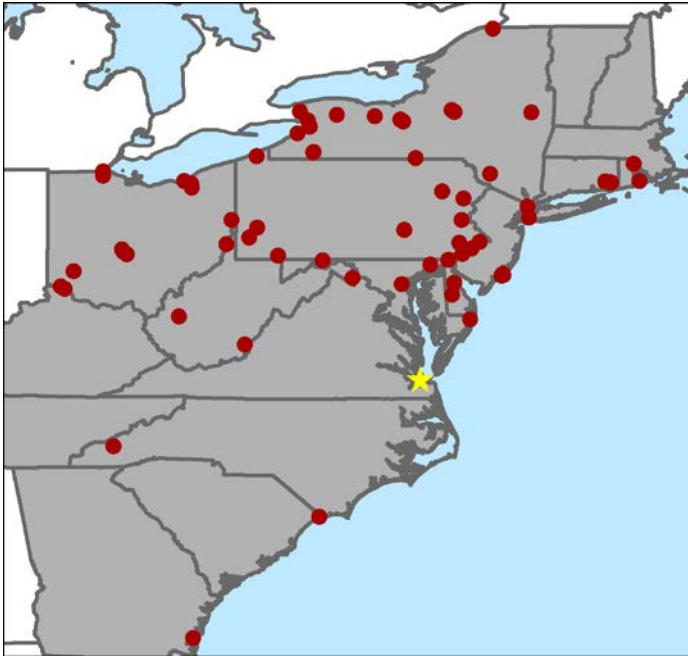
Source: HRPDC & American Casino Guide

Estimating Gross Receipts Per Gamer:

There are two methods for estimating the gross receipts based of the number of gamers.

One method estimates the weighted average gross receipts per gambler, and applies that to the total number of gamers. The New Hampshire gaming commission study found that $406 dollars per gambler per year was a credible estimate for gamblers in the Northeast market. Using that number for Hampton Roads, regional gross receipts would be between $210M and $270M per year. There would be additional revenues for the Hampton Roads gaming industry depending on the mix of restaurants, entertainment venues, and accommodations that were included in the casino.[7]

The second method attempts to quantify gaming revenues per casino trip. While the Virginia gamer currently averages 2.7 trips per year, in regions where casinos are located, the number of trips increases to between 6.2 and 6.7 trips per year. Spectrum Gaming Group estimated that in 2010, the average gamer lost $150 per casino visit. Using this method gives a range of between $461M and $601M in gross gaming receipts for the region.

Other Estimates of Potential Gaming Receipts:

Informal conversations with revenue specialists at two casino development companies revealed other methods of estimating potential gaming revenue.

One research team uses a range of estimates for gaming receipts per adult within a 50 mile driving distance to estimate the total gross revenue for a regional casino. There are 1,100,945 adults within that radius for the approximate center of Hampton Roads. With a range of estimates between $325 and $500 per adult, this produces a gross gaming receipts (GGR) estimate between $357M and $550M for the region.

A research team from a separate development group uses a simpler method. According to their estimates, the average GGR for regional casinos are between 1.0% and 1.17% of the region's aggregate household

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[7] This method would indicate that approximately 40% of the gamers would be either gamers retained in this region who previously gambled elsewhere, or gamers from outside Hampton Roads, particularly from North Carolina.

income.[8] Aggregate household income within 50 miles of the center of Hampton Roads was $37.4 billion in 2012, generating potential revenues of between $374M and $438M.

Range of Estimates:

The estimates for potential gaming revenue in Hampton Roads range from a conservative $210M per year to a top figure of $601M per year. Using the simpler forecasting techniques based off of regional income and population figures yields a moderate estimate of $375M. It is important to note that this range of estimates assumes that the casino has achieved a fully developed market, which casino developers and literature review indicates will take between 18 months and 3 years. Additionally, these revenue estimates assume that a casino developed in Hampton Roads would include the full complement of table games, slots, and poker. Lastly, this assumes that no casinos would be developed elsewhere in Virginia or in Eastern/Central North Carolina.

Potential Tax Revenue:

As with the Gross Gaming Receipts, the tax revenue generated is predicated on several assumptions, primarily on the blended tax rate applied by the state. The lowest is applied by Nevada, with a 6.75% maximum state rate and a 1% local option, while the highest tax rate is in Pennsylvania, with a 55% tax rate on slot machines (though a much lower 16% tax on table games). The average rate for the nation is approximately 30% across both table games and slots. This gives potential tax revenue from Hampton Roads gaming of between $42M and $240M.

Potential Tax Revenues from Casino Gaming in Hampton Roads

Gaming Receipts	Low Tax Rate- 20%	Average Tax Rate- 30%	High Tax Rate- 40%
Low- $210M	$42	$63	$84
Moderate- $375M	$75	$113	$150
High- $601M	$120	$180	$240

Other Tax Revenues:

Although taxes on gross gaming receipts are the most common source of tax revenues, there are other potential tax revenues associated with casino gaming. The sale of the casino license has the ability to generate revenue immediately, though it is impossible to estimate that revenue without some assumptions about how the license would be sold. Additionally, both the gamblers who now stay in the region as well as individuals who are induced to the region as a result of gambling would pay meals, retail, and lodging tax in excess of what the region had previously collected. A crude estimate shows that up to 40% of the casino's gamers would be from one of these two groups, representing an additional boost to revenues.

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[8] Regional casinos are differentiated from destination casinos. According to this developer, only Atlantic City and Las Vegas currently meet those criteria.

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Figures for Comparison:

According to state gaming regulatory agencies, the State of Pennsylvania generates the largest amount of commercial casino tax revenue, followed at a substantial distance by Nevada. The two largest casino markets are Las Vegas and Atlantic City, which are widely known as destination markets and have the highest revenues. Other casino markets in the U.S. tend primarily to serve local populations. Of the casino markets listed below, Hampton Roads is most similar in size to the Tunica and Kansas City markets.

Top 20 U.S. Casino Markets, 2012

Casino Market	Revenue (Millions)
1. Las Vegas Strip, Nev.	6,207
2. Atlantic City, N.J.	3,052
3. Chicagoland, Ill./Ind.	2,243
4. Detroit, Mich.	1,417
5. Connecticut (Slots Only)	1,230
6. Philadelphia, Pa.	1,167
7. St. Louis, Mo./Ill.	1,108
8. Gulf Coast, Miss.	1,095
9. The Poconos, Pa.	902
10. Tunica/Lula, Miss.	822
11. Kansas City, Mo.	800
12. Boulder Strip, Nev.	797
13. Shreveport/Bossier City, La.	716
14. Lake Charles, La.	687
15. New York City, N.Y.	673
16. Reno/Sparks, Nev.	645
17. Pittsburgh/Meadow Lands, Pa.	636
18. Black Hawk, Colo.	633
19. Lawrenceburg/Rising Sun/Belterra, Ind.	632
20. New Orleans, La.	622

Source: The Innovation Group

Commercial Casino Tax Revenue by State, FY2012 (Millions)

State	Commercial Taxes
Pennsylvania	$1,487
Nevada	$869
New York	$823
Indiana	$807
Louisiana	$579
Illinois	$574
Missouri	$471
West Virginia	$403
Iowa	$334
Rhode Island	$329
Michigan	$320
Mississippi	$273
New Jersey	$255
Maryland	$218
Delaware	$217
Florida	$162
Ohio	$138
Colorado	$104
Kansas	$92
New Mexico	$63
Maine	$43
Oklahoma	$20
South Dakota	$17

Source: State Gaming Regulatory Agencies

NET ECONOMIC IMPACT

The net economic impact of a project can be defined as the total economic value that results from a project, less any economic costs. The positive impacts come in the form of direct impacts (labor, materials, supplies, capital), indirect impacts (the purchase of goods and services by suppliers as well as the labor required to meet demand), and induced impacts (increased purchases made at the household level). The economic costs are those associated with substitution or displacement (sometime referred to as cannibalization), where expenditures are transferred from existing businesses to a new business. A discussion paper on the impacts of gambling by the Federal Reserve Bank of Philadelphia suggests that the classic multiplier approach is the most straightforward method for estimating the net economic impacts. While such an analysis does provide an estimate for the economic impact, it does not account for other costs such as social costs, increased infrastructure or safety expenditures, or the opportunity costs of foregoing alternative development opportunities.[9]

To conduct an analysis of the economic impact of casino gaming in Hampton Roads, staff employed the Hampton Roads Planning District Commission's REMI model. The REMI[10] model (Regional Economic Models, Inc.) utilizes the classical multiplier approach, and is considered one of the most advanced and sophisticated dynamic forecasting and policy analysis tools available on the market, widely recognized for quality, accuracy, and integrity. The REMI model has been used in numerous casino analyses, including studies on gaming in Pennsylvania, Massachusetts, and New Hampshire.

The net economic impact of a casino would be dependent on many factors, including the size of the establishment, the location of the establishment, the number of employees, the level of taxation, the degree to which the casino attracts outside visitors, the degree to which the casino retains gaming enthusiasts who would otherwise travel elsewhere, and the degree of development of companion industries (hotels, restaurants, entertainment, and retail). The determination of the ideal size and location of a casino (or multiple casinos) would require an extensive market analysis and an understanding of any regulatory restrictions with respect to casino development. In estimating the potential economic impact of casino gaming, staff assumed a conservative direct employment base of 2,000 (initial estimates from the Cordish Company suggested 3,000 employees, while the state of Delaware currently has 2,775 casino employees[11]). The REMI analysis conducted by staff yielded a high and low estimate, based on casino location, as well as higher and lower estimates of displacement of current business. The analysis suggests that casino gaming in Hampton Roads that had direct employment of 2,000 employees would result in a net increase of between 1,950 and 2,470 employees, increasing regional gross product by between $77.9 million and $107.1 million.

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[9] Mallach 2010

[10] Information about the REMI model, including the assumptions, equations, and detailed specifics of the model are available at www.remi.com/resources/documentation - PI+ version 1.5

[11] http://www.americangaming.org/sites/default/files/uploads/docs/aga_sos2013_fnl.pdf

Potential Economic Impact on Hampton Roads of a Casino with 2,000 Employees

Total Employment	lower estimate	1,950
(Direct, Indirect, and Induced)	higher estimate	2,470
Increase in Gross Regional Product	lower estimate	$77.9
(millions of 2014$s)	higher estimate	$107.1
Increase in Regional Personal Income	lower estimate	$65.5
(millions of 2014$s)	higher estimate	$91.8

Source: Hampton Roads Planning District Commission

Although there is a general consistency in estimating the projected economic impact of casino gaming, there are numerous studies based on empirical research that have sought to calculate the net economic impact of established casinos and gaming markets. The methodology used to determine these impacts varies significantly, as do the research findings. An extensive study estimating the impact of casino gambling in Wisconsin concluded that the total positive impact of $1.4 billion was offset by $1.1 billion in negative economic impacts and $320 million in social costs, resulting in a negligible net economic impact of only $5.8 million.[12] Studies of gaming in Illinois concluded that the net impact of gaming was actually negative,[13] while studies of statewide impacts in Iowa[14] and Missouri[15] found significant positive impacts.

The subject of substitution (also known as displacement or cannibalization) has been target of much research with respect to casino gambling. Because gaming is a form of entertainment, and entertainment is based on discretionary income, new gaming (or any form of entertainment) can result in simply shifting consumer expenditures from one form of entertainment to another. An analysis from the Federal Reserve Bank of Boston notes that "Casinos that cater to a local market generally do not bring outside money into the economy through the spending of their patrons. In fact, such casinos may have no net ancillary economic impacts."[16] One of the critiques of impact analysis that results in significant economic benefits is that these analyses narrowly define substitution, as was the case in the aforementioned Iowa impact analysis.[17]

Generally speaking, the largest determinant on the net economic impact of casino gaming on a region is likely to be the degree to which the casino attracts outside residents, and recaptures residents that would otherwise gamble elsewhere. According to a discussion paper from the Philadelphia Federal Reserve Bank, less than 15% of casino patrons in Las Vegas or Atlantic City are local residents, while 80% of the patrons from Detroit's casinos were local and 84% of Illinois riverboat patrons came from Illinois. One suggested

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[12] Thompson, Gazel, and Rickman 1995

[13] Thompson and Gazel 1996

[14] Chhabra 2007

[15] Leven, Phares, and Louishomme 1998

[16] Brome 2006

[17] Mallach 2010

rule of thumb is that casinos are likely to have an overall negative regional impact unless more than 50% of their patrons come from outside of the region.[18] A study on the impacts of gaming taxation prepared for the American Gaming Association notes that tax rates are inversely related to capital investments, where low rates of taxation on gaming establishments encourage capital investment in casinos and enable gaming establishments to increase the amenities they offer. Low rates of taxation, such as are found in Nevada (6.75%) and New Jersey (8.0%) may thus increase the likelihood of developing a destination casino that can attract out-of-town visitors.[19]

SOCIAL COSTS

There are a host of negative externalities or "social costs" that are generally attributed to casinos, such as increased poverty, increased crime, and the problem of pathological gambling. Unfortunately, there appears to be no single generally accepted methodology for determining the economic impacts of these social costs. As stated in a discussion paper from the Federal Reserve Bank of Philadelphia "From an economic perspective, accounting for the fiscal impact of the social costs imposed by casino gambling can be more problematic than measuring the gross economic or revenue impact, beginning with the complexity of defining precisely what can be considered "social costs," and of those costs, which can reasonably be attributed to a casino, rather than to other factors also at work within society.[20]

In general, social costs arise from the negative externalities associated with three distinct aspects of problem gaming or other socially undesirable behavior potentially triggered by casinos:[19]

1) Costs borne by the individual exhibiting the behavior;
2) Costs borne by the family and friends of that individual; and
3) Costs borne by society.

"To the extent that the costs are knowingly and freely borne by the consumer or producer himself, they are referred to as private costs; but to the extent that they are not so borne but fall on the rest of society, they are referred to as social costs[21]." That is to say that there are no social costs associated with a gambler who knowingly or rationally engages in gambling, just as there are no social costs associated with persons who purchase other forms of entertainment such as movies, concerts, or sporting events.[22]

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[18] Mallach 2010

[19] American Gaming Association 2005

[20] Mallach 2010

[21] Markandya & Pearce 1989

[22] Some have argued that because gamblers are disproportionately lower-income individuals, their disproportionate gambling losses represent a social cost or, alternatively, that casinos should be discouraged or banned because they prey on the poor (Reno 1997). These are paternalistic arguments, since they assume that lower-income people are less able than others to make rational judgments about the utility of a particular expenditure (Mallach 2010).

Social Impacts Associated with Gambling

Type	Bearer of Costs	Description
Crime	Local communities, law enforcement, individuals, courts, corrections	Increase in crime associated with the introduction of a gambling facility. Majority of crime is monetary in nature (theft, burglary), but violent crimes may be associated as well.
Business and Employment Costs	Individual, family, economy, businesses	Increase in lost work days, lost productivity, and employment termination.
Bankruptcy	Individuals, banks, legal system, creditors	Bankruptcy as a result of gambling debts.
Mental Illness	Health insurer, treatment provider, family	Gambling is associated with mental illness such as depression and anxiety.
Suicide	Family	Problem and pathological gamblers have a higher risk for suicidal thoughts and committing suicide than the general public.
Social Services	Government, service agencies	These are the costs related to unemployment, welfare, and treatment costs due to individuals with problem gambling.
Regulatory Costs	Government	Government expenditures to operate a gambling regulatory agency.
Family Costs	Family	This includes costs associated with divorce, spousal separation, and child abuse and neglect, and domestic violence.
Abused Dollars	Family, friends, employers	These costs are those associated with money lost gambling that was taken from family, friends, or employers that is never reported as a crime.
Social Connections	Individuals, family, friends, communities	Reduction of social capital.
Political	Government, local communities	Increasing concentration of economic power could result in disproportionate political influence.

Source: New Hampshire Gaming Study Commission 2010

Two significant issues arise in assessing the social costs of casinos. First, many of the negative externalities commonly associated with problem gambling are not readily quantifiable, such as the costs borne by family and friends of a problem gambler. Second, it is unclear how much of any given cost is directly attributable to the presence of a casino. If gambling were not an option, a person who is predisposed to a pathological disorder may manifest his disorder in other, equally destructive ways."[23]

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[23] Walker and Barnett 1999

Crime is often the greatest fear associated with casino gambling,[24] and studies suggest that it generates the largest component of externality costs associated with casino gambling.[25] Several studies have shown an increased incidence of both index and non-index crime[26] following the opening of a casino.[27] An extensive analysis by Earl Grinols and David Mustard concluded that between 5.5% and 30% of crimes in casino counties can be associated with casinos, and that casinos increased all index level crimes except for murder. Furthermore, their analysis suggested that the impact of casinos on crime increased over time, as problem and pathological gamblers deplete resources, casino-induced changes in the population slowly take effect, and initial increases in law-enforcement subside.[28] Studies that show an increased incidence of casino-related crime have been criticized because they may fail to account for increased number of visitors following the opening of a casino (which would decrease the rate of incidents per individual) and because they do not differentiate between higher crime rates from casinos and crime rates that may accompany any other type of entertainment venue.

The category of social costs most extensively studied is to do with costs associated with problem gambling and compulsive gambling, where cost estimates vary significantly.[29] The National Gambling Impact Study Commission (NGISC) concluded that the cost per problem gambler was $560 per year, and $1,050 for pathological gamblers, with lifetime costs of $3,580 and $7,250 respectively.[30] Other studies have estimated costs ranging $15,000 per pathological gambler up to $100,000.[31] The aforementioned analysis by Grinols and Mustard estimated that the social crime cost associated with casinos was $75 per adult in 1996 ($110 in 2013$) for the county (jurisdiction) in which the casino was located.[32]

CONCLUSION

Allowing the development of casino gaming in Hampton Roads presents a range of potential benefits and costs to the region. Analysis indicates that casino gaming in Hampton Roads does have the potential to generate significant tax revenues. Based on a moderate estimate of gross gaming receipts, and using the average gaming tax of 30%, casino gambling Hampton Roads is likely to generate approximately $113

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[24] Giacopassi, David, Mark Nichols, and B. Grant Stitt 1999

[25] Grinols and Mustard 2006

[26] Under the Federal Uniform Crime Reporting System, index crimes include aggravated assault, murder, forcible rape, robbery, burglary, larceny-theft, motor vehicle theft, and arson. Non-index crimes are other crimes report to the police.

[27] Gazel, Rickman, and Thompson 2001

[28] Grinols and Mustard 2006

[29] Problem gambling is defined as behavior which causes disruption in major life areas, whereas pathological (a.k.a. compulsive) gambling is characterized by an addictive trait with an obsessive need to gamble resulting in increasingly negative circumstances.

[30] Gerstein et al. 1999

[31] Mallach 2010

[32] Grinols and Mustard 2006 (this does not include costs associated with regulatory costs, lost productivity, social service and welfare)

million in tax revenues. Other estimates based on methodologies used by casino gaming companies suggest potentially higher revenues.

While it is clear that gaming does generate revenue, it is less clear as to the overall economic and social impacts of casino gambling. In spite of the fact that gaming has been the subject of numerous in-depth studies, there is little consensus among researchers as to the overall societal impacts. Economic modeling suggests that the economic impact of a regional casino with 2,000 employees would result in an increase in gross regional product of between $77.9 and $107.1 million and increase regional employment between 1,950 and 2,470. Several studies do suggest, however, that the net economic impact could be substantially reduced depending on the level of substitution and displacement of other economic activity.

There are also a host of social costs associated with casino gambling, many of which are unquantifiable. Studies suggest that casinos increase the prevalence of crime, bankruptcy, mental illness and suicide, and pose additional social, regulatory, and business costs.

Further study is warranted to gain a better understanding of the impact of casino gaming on Hampton Roads. Clarification on the structure of gaming in the Commonwealth would allow for a more refined analysis of the potential revenues and the associated economic and social impacts.

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